STATEMENT OF LEGAL AND FACTUAL BASIS

Sam Moore Industries, Inc.
Bedford, Virginia
Permit Number:VA-30072
Permit Date: February 4, 2002
Registration No. 30072
AIRS ID No. 019-0006

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Sam Moore Industries Inc. has applied for a Title V Operating Permit for its wood furniture manufacturing facility. The Department has reviewed the application and has prepared a Title V Operating Permit.

Engineer/Permit Contact:_____ Date: February 4, 2002

FACILITY LOCATION:

1556 Dawn Drive, Bedford
Sam Moore Furniture - UTM Coordinates are Zone: 17 Easting: 632.3 km Northing: 4133.2 km
Bedford Manufacturing - UTM Coordinates are Zone: 17 Easting: 632.2 km Northing: 4133.2 km

FACILITY DESCRIPTION:

Sam Moore Furniture Industries Inc., consisting of Sam Moore Furniture and Bedford Manufacturing, is a manufacturer of wooden chairs covered by Standard Industrial Classification (SIC) Codes 2512 and 2511, respectively. The two facilities are considered as one stationary source because they belong to the same major SIC group, are located on adjacent property, and are under common ownership. The source has the potential to operate twenty-four (24) hours per day, seven (7) days per week, fifty-two (52) weeks per year.

Wooden chairs are produced by this source with Sam Moore Furniture having a SIC code of 2512 and Bedford Manufacturing having a SIC code of 2511.

Source Description

Wooden frame parts for the chairs manufactured by the source are produced in the Bedford Manufacturing facility. Assembly of the chair frames; applying the finish to the wood; and installation of springs, padding, and upholstery takes place at the Sam Moore Furniture facility. The Sam Moore Furniture facility began operations in the late 1950s using wooden parts manufactured elsewhere. Bedford Manufacturing was registered in 1973 and issued a permit on 12/12/73 for a frame making facility; however, it had been in operation since the late 1950s under a different name producing an entirely different product.

There are three boilers for this source, all located at the Sam Moore facility. One boiler is a 250 HP (9.8×10^6 Btu/hr) Iron-Fireman fuel oil-fired boiler, which is designated as B001. This boiler was installed in 1974. The second boiler is a 300 HP (12.6×10^6 Btu/hr) Northfab wood/oil-fired unit, designated B002, and was installed in 1980. Wood waste from the woodworking operation is the primary fuel with #2 fuel oil as a backup fuel. Particulate emissions from this boiler are controlled by a multicyclone . In 1999 the third boiler, a 200 HP (8.4×10^6 Btu/hr) Cleaver Brooks oil-fired boiler designated B003, was installed.

Tables follow listing emission factors, permit emission limits and calculated potential emissions.

Cleaver Brooks 8.4 x 10^6 boiler (B003)	**Emission Factor (lbs/1000 gal)**	**Potential (lbs/10^6 Btu)**	**Permit Limit (lbs/10^6 Btu)**
Particulate matter	2	0.01lbs/10^6 Btu	0.6 lbs/10^6 Btu
PM-10	1	0.01lbs/10^6 Btu	0.6 lbs/10^6 Btu
Sulfur Dioxide	143.6	0.52 lbs/10^6 Btu	2.64 lbs/10^6 Btu

Iron-Fireman 9.8 x 10^6 Btu boiler (B001)	**Emission Factor (lbs/1000 gal)**	**Potential (lbs/10^6 Btu)**	**Permit Limit (lbs/10^6 Btu)**
Particulate matter	2	0.01lbs/10^6 Btu	0.6 lbs/10^6 Btu

PM-10	1	0.01lbs/10^6 Btu	0.6 lbs/10^6 Btu
Sulfur Dioxide	143.6	0.52 lbs/10^6 Btu	2.64 lbs/10^6 Btu

Northfab 12.6 x 106 Btu boiler (B002)	**Emission Factor (lbs/ton)**	**Potential (tons/yr)**	**Permit Limit (tons/yr)**
Particulate matter	8.8	6.09	19.9 tons/yr
PM-10	8.8	15.20	19.9 tons/yr
Sulfur Dioxide	0.02	0.09	28.3 tons/yr

Miscellaneous woodworking equipment is used to produce wood frame parts. Most wood waste from the woodworking operation is collected by the two dust collection systems at the facility. Each system uses a baghouse to control particulate emissions. After collection the wood waste is transferred pneumatically to the boiler fuel silo at the Sam Moore facility, for use as fuel in the Northfab boiler. Large scrap and other wood waste, not collected by the dust systems, is processed through a chipper and then transferred pneumatically to the boiler fuel silo. The silo uses a cyclone and fabric filter to control particulate emissions.

Assembly of the wooden components is done using a water-based, Elmer's type, glue. The application of the glue is done by hand, therefore, no spraying or spray booths are involved.

In 1999 the existing finishing operation was replaced with a finishing line of seven spray booths and three drying ovens and an off-line touchup/repair spray booth. Heat for the drying ovens is supplied by steam from the facility boilers. Each spray booth has a stack that vents to the atmosphere. The spray booths are equipped with filters for particulate control. Information supplied by the coating supplier allows the source to keep track of amounts of coatings used, and the amount of VOC and HAP emissions, and in conjunction with estimated transfer efficiency, can be used to calculate particulate emissions from the finishing operation.

Two hooded spray booths are used for adhesive application in the upholstery section of the facility. Emissions from the adhesive spray booths are vented to the atmosphere through two common stacks. Currently, water-based adhesives are primarily used; however, VOC-based adhesives can also be used. A small amount of VOC-based adhesive is used in the cutting operation of the upholstery material.

Compliance History

On 12/12/73 a permit was issued to Bedford Manufacturing to install and operate a frame making facility. The 250 HP Iron-Fireman boiler was installed in 1974 at the Sam Moore Furniture facility. On 10/23/80 the Sam Moore facility received a permit for the 300 HP Northfab boiler. This permit was later amended on October 29, 2001. On 4/25/88 the Bedford Manufacturing facility was issued a permit for the installation of some additional woodworking equipment. This permit was amended 3/4/98. On 4/19/99 the Sam Moore facility was issued a permit to replace the existing finishing line. This permit was amended with a state-only section on August 3, 2001 and amended again on October 26, 2001. On 6/3/99 a letter

was issued to the Sam Moore facility stating that a permit was not needed for the installation of the 200 HP Cleaver Brooks boiler.

A review was made of the inspection reports for both facilities for the last 10 years. All inspection reports for this period show the source to be in compliance.

EMISSIONS SUMMARY:

PLANTWIDE EMISSIONS SUMMARY (TONS PER YEAR)	
POLLUTANTS	ACTUAL 1998 EMISSIONS
Particulate Matter (PM_{10})	10.2
Nitrogen Oxides (NO_x)	0.9
Sulfur Dioxide (SO_2)	0.7
Carbon Monoxide (CO)	0.9
Volatile Organic Compounds (VOC)	61.3
Hazardous Air Pollutants	>25

TITLE V PROGRAM APPLICABILITY BASIS:

This facility has the potential to emit greater than 100 tons per year of VOCs and Sulfur Dioxide, and greater than 25 tons per year of a combination of Hazardous Air Pollutants (HAPs). Due to this facility's potential to emit over 100 tons per year of a criteria pollutant and over 25 tons per year of HAPs, Sam Moore Furniture is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 9 VAC 5 Chapter 80 Article 1.

Applicable Requirements

Emissions Standards and Visible Emission Requirements

Fuel Burning

For the Iron-Fireman 250 HP boiler (B001) and the Cleaver Brooks 200 HP boiler (B003) particulate matter (PM) and SO_2 are the only regulated pollutants emitted that have an applicable requirement, and therefore emission standards. The PM emissions standard is 0.6 lbs/10^6 Btus in accordance with 9 VAC 5-40-900. The SO_2 emissions standard is 2.64 lbs/10^6 Btus in accordance with 9 VAC 5-40-930. These boilers burn #2 fuel oil and the source does not intend to burn any other fuel. By using only #2 fuel oil the source will be in compliance with the SO_2 standard. Maintenance, inspection, and operator training programs are required for the boilers to insure that they are operating properly. Records of the quantities of fuels used are required. Therefore, it is felt that the source will be in compliance with permitted limits.

Visible emissions for the Iron-Fireman and Cleaver Brooks boilers are limited to 20% opacity, except for one six-minute period per hour of 30% opacity, as required by 9 VAC 5-50-80. Under normal operations there is no opacity. Monitoring of opacity will require the source to at least one time per week observe for the presence of visible emissions from the boiler stacks. If visible emissions are present, the permittee is required to either, take timely corrective action such that the boilers operate with no visible emissions, or, conduct a visible emission evaluation (VEE) in accordance with EPA Method 9 (reference

40 CFR 60, Appendix A) for a minimum of six (6) minutes, to assure the opacity is 20% percent or less. If any of the observations exceed the 20% opacity limit, the VEE shall continue for a total of sixty (60) minutes. Timely corrective action is required, if necessary, so that the boiler operate within the 20% opacity limit.

The Northfab 300 HP boiler (B002) and wood waste storage silo was issued a permit 10/23/80. PM and SO_2 emissions were restricted by limits in the permit. Both short term and long term limits were included in the permit. PM emissions are limited to 0.36 lbs/10^6 Btu and 19.87 tons/yr. SO_2 emissions are limited to 6.46 lbs/hr and 28.29 tons/yr. With dry wood as the primary fuel used by the boiler, and by using only #2 fuel oil as the backup fuel, the source will be in compliance with the SO_2 limits. Maintenance, inspection, and operator training programs are required for the boiler, its multicyclone, and the silo cyclone and fabric filter to insure that they are operating properly. Records of the quantities of fuels used are required. Therefore, it is felt that the source will be in compliance with the regulated limits.

Visible emissions for the Northfab boiler and the wood waste fuel storage silo fabric filter are limited to 20% opacity, except for one six-minute period per hour of 30% opacity, as required by 9 VAC 5-50-80. Particulate emissions from the boiler are controlled by a multicyclone, as required by permit. Under normal operations the opacity from the boiler is 10% or less. Particulate Emissions from the silo are controlled by a cyclone and fabric filter in series. Under normal operations there are no visible emissions from the fabric filter. Monitoring of opacity will require the source to at least one time per week observe for the presence of visible emissions from the boiler stack and fabric filter exhaust. If visible emissions are present, the permittee is required to either, take timely corrective action such that the emissions units operate with no visible emissions, or, conduct a visible emission evaluation (VEE) in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A) for a minimum of six (6) minutes, to assure the opacity is 20% or less. If any of the observations exceed the 20% opacity limit, the VEE shall continue for a total of sixty (60) minutes. Timely corrective action is required, if necessary, so that the emission units operate within the 20% opacity limit.

EPA Region III will not let DEQ include in this Title V permit the state regulation relaxing (excluding) the opacity standards during periods of startup, shutdown, or malfunction for existing pre-1972 boilers because it was recently realized that EPA specifically disapproved this DEQ regulation. However, EPA has SIP approved similar wording in 9 VAC 5-50-20 A.3 for emission units that were new or modified after 1972.

Woodworking

Visible emissions from the woodworking operation (W004) are limited to 5% opacity by the 4/25/88 permit. The NSR permit requires that emissions be controlled by fabric filters. Under normal operations there are no visible emissions. Monitoring of opacity will require the source to at least one time per week observe for the presence of visible emissions from the fabric filter exhaust stacks. If visible emissions are observed, timely corrective action shall be taken such that the fabric filter resumes operation with no visible emissions. Included in the NSR permit, and in the Title V permit, is the requirement that operating procedures and a maintenance schedule be developed for the control equipment.

Furniture Finishing

A permit was issued for the finishing operation (F003) on 4/19/99. This permit was amended on August 3, 2001 and superceded on October 26, 2001. The NSR permit requires that the finishing operation met the new source requirements for Furniture MACT, 40 CFR 63 Subpart JJ (discussed below). Particulate matter and VOC emissions were restricted by limits in the permit. Both short term and long term limits were included in the permit. PM emissions are limited to 2.9 lbs/hr and 8.9 tons/yr. VOC emissions are limited to 81.7 lbs/hr and 230 tons/yr. Maintenance, inspection, and operator training programs are required for the control equipment to insure that they are operating properly. Records of the

throughput and emissions of PM and VOCs are required to be kept. Therefore, it is felt that the source will be in compliance with the regulated limits.

Visible emissions from the finishing operation are limited to 5% opacity by the 4/19/99 permit. The NSR permit requires that particulate emissions be controlled by filter media. Under normal operations there are no visible emissions. Monitoring of opacity will require the source to at least one time per week observe for the presence of visible emissions from the spray booth stacks. If visible emissions are observed, timely corrective action shall be taken such that the spray booths resume operation with no visible emissions.

Furniture Gluing

There are two gluing operations associated with production at this facility, the assembly of the wood components and assembly of the upholstery components. VOC emissions from assembly of the wood components, using a low VOC adhesive, are fugitive. There are no applicable requirements for this wood gluing operation. Applicable requirements for the two spray booths (G006) of the upholstery gluing operation include visible emissions and the Furniture MACT, 40 CFR 63, Subpart JJ (discussed below). The applicable opacity standard is 20% as required by 9 VAC 5-40-80. Under normal operating conditions there are no visible emissions. Monitoring of opacity will require the source to at least one time per week observe for the presence of visible emissions from the spray booth stacks. If visible emissions are present, the permittee is required to either, take timely corrective action such that the spray booths operate with no visible emissions, or, conduct a visible emission evaluation (VEE) in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A) for a minimum of six (6) minutes, to assure the opacity is 20% or less. If any of the observations exceed the 20% opacity limit, the VEE shall continue for a total of sixty (60) minutes. Timely corrective is required, if necessary, so that the spray booths units operate within the 20% opacity limit. Maintenance, inspection, and operator training programs are required for the spray booths to insure that they are operating properly.

MACT

This source has the potential to emit greater than 10 tons/yr of any single HAP or 25 tons/yr of any combination of HAPs, therefore, it is subject to the Furniture MACT, 40 CFR 63, Subpart JJ. The source emitted less than 50 tons of HAPs in 1996, therefore, its compliance date for the MACT was December 7, 1998. The source intends to use compliant coatings and adhesives to meet the emission standards required by the MACT; however, the averaging method of compliance is still available to the source for the finishing operation should it be needed. As the source does not intend to use a control device to meet the emission standards, those portions of the MACT requirements dealing with control devices have not been included in this Title V permit.

Generally Applicable Requirements

For the Sam Moore facility visible emissions from any emission unit not specifically listed can not exceed 20% opacity except for one six-minute period in any hour in which opacity shall not exceed 60 percent, in accordance with 9 VAC 5-40-80. For the Bedford Manufacturing facility visible emissions from any emission unit not specifically listed can not exceed 20% opacity except for one six-minute period in any hour in which opacity shall not exceed 30 percent, in accordance with 9 VAC 5-50-80.

LEGAL AND FACTUAL BASIS FOR DRAFT PERMIT CONDITIONS:

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the Commonwealth of Virginia Federal Operating Permit Regulations for the purposes of Title V of the Federal Clean Air Act (9 VAC 5 Chapter 80 Article 1), and underlying applicable requirements in other state and federal rules. Applicable requirement means all of the following as they apply to emission units in a Title V source:

a. Any standard or other requirement provided for in the State Implementation Plan or the Federal Implementation Plan, including any source-specific provisions such as consent agreements or orders.

b. Any term or condition of any preconstruction permit issued pursuant to 9 VAC 5-80-10, Article 8 (9 VAC 5-80-1700 et seq.) of this part or 9 VAC 5-80-30 or of any operating permit issued pursuant to 9 VAC 5-80-40, except for terms or conditions derived from applicable state requirements or from any requirement of these regulations not included in the definition of applicable requirement.

c. Any standard or other requirement prescribed under these regulations, particularly the provisions of 9 VAC 5 Chapter 40 (9 VAC 5-40-10 et seq.), 9 VAC 5 Chapter 50 (9 VAC 5-50-10 et seq.) or 9 VAC 5 Chapter 60 (9 VAC 5-60-10 et seq.), adopted pursuant to requirements of the federal Clean Air Act or under ' 111, 112 or 129 of the federal Clean Air Act.

d. Any requirement concerning accident prevention under ' 112(r)(7) of the federal Clean Air Act.

e. Any compliance monitoring requirements established pursuant to either ' 504(b) or ' 114(a)(3) of the federal Clean Air Act or these regulations.

f. Any standard or other requirement for consumer and commercial products under ' 183(e) of the federal Clean Air Act.

g. Any standard or other requirement for tank vessels under ' 183(f) of the federal Clean Air Act.

h. Any standard or other requirement in 40 CFR Part 55 to control air pollution from outer continental shelf sources.

I. Any standard or other requirement of the regulations promulgated to protect stratospheric ozone under Title VI of the federal Clean Air Act, unless the administrator has determined that such requirements need not be contained in a permit issued under this article.

j. With regard to temporary sources subject to 9 VAC 5-80-130, (i) any ambient air quality standard, except applicable state requirements, and (ii) requirements regarding increments or visibility as provided in Article 8 (9 VAC 5-80-1700 et seq.) of this part.

k. Any standard or other requirement of the acid deposition control program under Title IV of the Clean Air Act or the regulations promulgated thereunder.

l. Any standard or other requirement governing solid waste incineration under '129 of the Clean Air Act.

Each State and Federally-enforceable condition of the draft Title V Operating Permit references the specific relevant requirements of 9 VAC 5 Chapter 80 Article 1 or the applicable requirement upon which it is based. Any condition of the draft Title V permit that is enforceable by the state but is not federally-enforceable is identified in the draft Title V permit as such.

This facility has been found to be subject to the requirements set forth in items Aa, b, and c@ above.

REQUEST FOR VARIANCES OR ALTERNATIVES:

None

COMMENT PERIOD:

The public notice appeared in the Bedford BULLETIN on September 15, 1999.

Beginning Date: September 15, 1999

Ending Date: September 22, 1999